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atggatatca gcagcctgac atctgaggac tctgcggtct acttctgtgc aagaggctat
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<210>
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      PRT
<213> Mus musculus
<400> 118
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
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                                                        15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Thr Asn Ser
            20
                                                    30
Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile
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Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn Gly Lys Phe 55 Arg Val Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr 75 Met Asp Ile Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 -95 Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 Leu Val Thr Val Ser Ala 115 <210> 119 <211> 336 <212> DNA <213> Mus musculus <400> 119 gatattgtga tgactcaggc tgcaccctct atacctgtca ctcctggaga gtcagtatcc 60 atctcctgta ggtctagtaa gagtctcctg catagtaatg gcaacactta cttgtattgg 120 ttcctgcaga ggccaggcca gtctcctcaa ctcctgatat atcggatgtc caaccttgcc 180 tcaggagtcc cagataggtt cagtggcagt gggtcaggaa ctgctttcac actgagaatc 240 agtagagtgg aggctgagga tgtgggtgtt tattactgta tgcaacatat aqaatatcct 300 tttacgttcg gatcggggac caagctggaa ataaaa 336 <210> 120 <211> 112 <212> PRT <213> Mus musculus <400> 120 Asp Ile Val Met Thr Gln Ala Ala Pro Ser Ile Pro Val Thr Pro Gly Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His 85 90 95

Ile Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 121

<211> 762

<212> DNA

<213> Mus musculus

<400> 121

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<210> 122

<211> 254

<212> PRT

<213> Mus musculus

<400> 122

Met Glu Trp Pro Leu Ile Phe Leu Phe Leu Leu Ser Gly Thr Ala Gly
1 5 10 15

Val His Ser Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys 20 25 30

Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe 35 40 45

Thr Asn Ser Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu 50 55 60

Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn 65 70 75 80

Gly Lys Phe Arg Val Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Ser 85 90 95

Thr Ala Tyr Met Asp Ile Ser Ser Leu Thr Ser Glu Asp Ser Ala Val 100 105 110

Tyr Phe Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly
115 120 125

Gln Gly Thr Leu Val Thr Val Ser Ala Gly Gly Gly Ser Asp Ile 130 135 140

Val Met Thr Gln Ala Ala Pro Ser Ile Pro Val Thr Pro Gly Glu Ser 145 150 155 160

Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser Asn Gly
165 170 175

Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro Gln 180 185 190

Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp Arg 195 200 205

Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser Arg 210 220

Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Ile Glu 225 230 235 240

Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys 245 250

<210> 123

<211> 635

<212> PRT

<213> Homo sapiens

<400> 123

Met Pro Ser Trp Ala Leu Phe Met Val Thr Ser Cys Leu Leu Leu Ala 1 5 10 15

Pro Gln Asn Leu Ala Gln Val Ser Ser Gln Asp Val Ser Leu Leu Ala 20 25 30

Ser Asp Ser Glu Pro Leu Lys Cys Phe Ser Arg Thr Phe Glu Asp Leu 35 40 45

Thr Cys Phe Trp Asp Glu Glu Glu Ala Ala Pro Ser Gly Thr Tyr Gln 50 55 60

Leu Leu Tyr Ala Tyr Pro Arg Glu Lys Pro Arg Ala Cys Pro Leu Ser 70 75 80

Ser Gln Ser Met Pro His Phe Gly Thr Arg Tyr Val Cys Gln Phe Pro 85 90 95

Asp Gln Glu Val Arg Leu Phe Phe Pro Leu His Leu Trp Val Lys
100 105 110

Asn Val Phe Leu Asn Gln Thr Arg Thr Gln Arg Val Leu Phe Val Asp 115 120 125

Ser Val Gly Leu Pro Ala Pro Pro Ser Ile Ile Lys Ala Met Gly Gly 130 135 140

Ser Gln Pro Gly Glu Leu Gln Ile Ser Trp Glu Glu Pro Ala Pro Glu 145 150 155 160

Ile Ser Asp Phe Leu Arg Tyr Glu Leu Arg Tyr Gly Pro Arg Asp Pro
165 170 175

Lys Asn Ser Thr Gly Pro Thr Val Ile Gln Leu Ile Ala Thr Glu Thr 180 185 190

Cys Cys Pro Ala Leu Gln Arg Pro His Ser Ala Ser Ala Leu Asp Gln
195 200 205

Ser Pro Cys Ala Gln Pro Thr Met Pro Trp Gln Asp Gly Pro Lys Gln 210 215 220

Thr Ser Pro Ser Arg Glu Ala Ser Ala Leu Thr Ala Glu Gly Gly Ser 225 230 235 240

Cys Leu Ile Ser Gly Leu Gln Pro Gly Asn Ser Tyr Trp Leu Gln Leu 245 250 255

Arg Ser Glu Pro Asp Gly Ile Ser Leu Gly Gly Ser Trp Gly Ser Trp 260 265 270

Ser Leu Pro Val Thr Val Asp Leu Pro Gly Asp Ala Val Ala Leu Gly 275 280 285

Leu Gln Cys Phe Thr Leu Asp Leu Lys Asn Val Thr Cys Gln Trp Gln 290 295 300

Gln Gln Asp His Ala Ser Ser Gln Gly Phe Phe Tyr His Ser Arg Ala 305 310 315 320

Arg Cys Cys Pro Arg Asp Arg Tyr Pro Ile Trp Glu Asn Cys Glu Glu 325 330 335

Glu Glu Lys Thr Asn Pro Gly Leu Gln Thr Pro Gln Phe Ser Arg Cys 340 345 350

His Phe Lys Ser Arg Asn Asp Ser Ile Ile His Ile Leu Val Glu Val 355 360 365

Thr Thr Ala Pro Gly Thr Val His Ser Tyr Leu Gly Ser Pro Phe Trp 370 375 380

Ile His Gln Ala Val Arg Leu Pro Thr Pro Asn Leu His Trp Arg Glu 385 390 395 400

Ile Ser Ser Gly His Leu Glu Leu Glu Trp Gln His Pro Ser Ser Trp 405 410 415

Ala Ala Gln Glu Thr Cys Tyr Gln Leu Arg Tyr Thr Gly Glu Gly His
420 425 430

Gln Asp Trp Lys Val Leu Glu Pro Pro Leu Gly Ala Arg Gly Gly Thr 435 440 445

Leu Glu Leu Arg Pro Arg Ser Arg Tyr Arg Leu Gln Leu Arg Ala Arg 450 455 460

Leu Asn Gly Pro Thr Tyr Gln Gly Pro Trp Ser Ser Trp Ser Asp Pro 465 470 475 480

Thr Arg Val Glu Thr Ala Thr Glu Thr Ala Trp Ile Ser Leu Val Thr 485 490 495

Ala Leu His Leu Val Leu Gly Leu Ser Ala Val Leu Gly Leu Leu 500 505 510

Leu Arg Trp Gln Phe Pro Ala His Tyr Arg Arg Leu Arg His Ala Leu 515 520 525

Trp Pro Ser Leu Pro Asp Leu His Arg Val Leu Gly Gln Tyr Leu Arg 530 540

Asp Thr Ala Ala Leu Ser Pro Pro Lys Ala Thr Val Ser Asp Thr Cys 545 550 555 560

Glu Glu Val Glu Pro Ser Leu Leu Glu Ile Leu Pro Lys Ser Ser Glu 565 570 575

Arg Thr Pro Leu Pro Leu Cys Ser Ser Gln Ala Gln Met Asp Tyr Arg
580 585 590

Arg Leu Gln Pro Ser Cys Leu Gly Thr Met Pro Leu Ser Val Cys Pro
595 600 605

Pro Met Ala Glu Ser Gly Ser Cys Cys Thr Thr His Ile Ala Asn His 610 615 620

Ser Tyr Leu Pro Leu Ser Tyr Trp Gln Gln Pro 625 630 635

<210> 124

<211> 122

<212> PRT

<213> Mus musculus

<400> 124

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser 20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

Gly Arg Thr Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95

Ala Arg Gly Trp Ile Leu Ala Asp Gly Gly Tyr Ser Phe Ala Tyr Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ala 115 120

<210> 125

<211> 112

<212> PRT

<213> Mus musculus

<400> 125

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Ile Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 40

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 75

Ser Arg Val Glu Ala Glu Asp Val Gly Ile Tyr Tyr Cys Met Gln His 85 90

Leu Glu Tyr Pro Phe Thr Phe Gly Thr Gly Thr Lys Leu Glu Ile Lys 100 105

<210> 126 <211> 118

<212> PRT

<213> Mus musculus

<400> 126

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 40

Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe 55

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr 65 80

Ile Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 95

Ala Arg Gly Tyr Ala Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105

Leu Val Thr Val Ser Ala 115

<210> 127

<211> 112

<212> PRT

<213> Mus musculus

<400> 127

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His 85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys 100 105 110

<210> 128

<211> 118

<212> PRT

<213> Mus musculus

<400> 128

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser 20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Asn Tyr Asn Gly Lys Phe 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Asn Thr Ala Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95

Ala Arg Gly Phe Gly Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 110

Leu Val Thr Val Ser Ala 115

<210> 129

<211> 112

<212> PRT

<213> Mus musculus

<400> 129

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Ala Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 70 75 80

Ser Arg Val Glu Thr Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His \$85\$ 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 130

<211> 118

<212> PRT

<213> Mus musculus

<400> 130

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Ser Ser 20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95

Ala Ser Gly Tyr Ala Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 110

Leu Val Thr Val Ser Ala 115

<210> 131

<211> 112

<212> PRT

<213> Mus musculus

<400> 131

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His
85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys 100 105 110

<210> 132

<211> 118

<212> PRT

<213> Mus musculus

<400> 132

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Arg Ser 20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr 75 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95

Ala Ser Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ala 115

<210> 133

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<211> 112
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<212> PRT

<213> Mus musculus

<400> 133

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His
85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys 100 105 110

<210> 134

<211> 118

<212> PRT

<213> Mus musculus

<400> 134

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Arg Ala Phe Gly Tyr Ala Phe Ser Asn Ser 20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Asn Asn Asn Gly Lys Phe 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95

Ala Arg Gly Tyr Gly Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 110

Leu Val Thr Val Ser Ala 115

<210> 135

<211> 112

<212> PRT

<213> Mus musculus

<400> 135

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Ala Ala Phe Thr Leu Arg Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His
85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 136

<211> 115

<212> PRT

<213> Mus musculus

<400> 136

Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr 20 25 30

Trp Val Asn Trp Val Lys Gln Arg Pro Gly Arg Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile His Pro Ser Asp Ser Glu Thr His Cys Asn Gln Lys Phe 50 55 60

Lys Arg Lys Ala Thr Leu Thr Val Asn Lys Ser Ser Ser Thr Ala Tyr 65 70 75 80

Ile Gln Leu His Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys 85 90 95

Thr Ser Gly Gly Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
100 105 110

Val Ser Ala 115

<210> 137

<211> 112

<212> PRT

<213> Mus musculus

<400> 137

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu Tyr Ser 20 25 30

Asn Gly Asn Ile Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile

65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His 85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 138

<211> 118

<212> PRT

<213> Mus musculus

<400> 138

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser 20 . 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Asn Asn Asn Gly Lys Phe 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Thr Thr Ala Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95

Ala Arg Gly Tyr Gly Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 . 110

Leu Val Thr Val Ser Ala 115

<210> 139

<211> 112

<212> PRT

<213> Mus musculus

<400> 139

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Ala Ala Phe Thr Leu Arg Ile 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His
85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 140

<211> 118

<212> PRT

<213> Mus musculus

<400> 140

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Thr Ser 20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Ala Asn Tyr Asn Gly Lys Phe 50 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Ser Ala Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95 Ala Arg Gly Tyr Gly Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ala 115

<210> 141

<211> 112

<212> PRT

<213> Mus musculus

<400> 141

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Met Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His
85 90 95

Val Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 142

<211> 118

<212> PRT

<213> Mus musculus

<400> 142

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser

20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Pro Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Asn Tyr Asn Gly Lys Phe 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Val Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95

Ala Arg Gly Tyr Gly Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 110

Leu Val Thr Val Ser Ala 115

<210> 143

<211> 112

<212> PRT

<213> Mus musculus

<400> 143

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His
85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 144

<211> 118

<212> PRT

<213> Mus musculus

<400> 144

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Leu Asn Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Arg Ser 20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Asn Tyr Asn Gly Lys Phe 50 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Thr Thr Ala Tyr 70 75 80

Met Gln Phe Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Ala Arg Gly Asp Gly Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 110

Leu Val Thr Val Ser Ala 115

<210> 145

<211> 112

<212> PRT

<213> Mus musculus

<400> 145

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser

20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His 85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 146

<211> 115

<212> PRT

<213> Mus musculus

<400> 146

Gln Val Gln Leu Gln Gln Pro Gly Thr Glu Leu Val Arg Pro Gly Ala 1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Trp Val Asn Trp Val Lys Gln Arg Pro Gly Arg Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile His Pro Tyr Asp Ser Glu Thr His Tyr Asn Gln Lys Phe 50 55 60

Lys Asn Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr 65 70 75 80

Ile Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys 85 90 95

Ala Ser Gly Gly Trp Phe Ala Ser Trp Gly Gln Gly Thr Leu Val Thr 100 105 110

Val Ser Ala 115

<210> 147

<211> 112

<212> PRT

<213> Mus musculus

<400> 147

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu Tyr Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Thr Ile 70 75 80

Ser Ser Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His
85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 148

<211> 115

<212> PRT

<213> Mus musculus

<400> 148

Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr 20 25 30

Trp Met Asn Trp Val Lys Gln Arg Pro Gly Arg Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile His Pro Phe Asp Ser Glu Thr His Cys Ser Gln Lys Phe 50 55 60

Lys Asn Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Asn Thr Ala Tyr 65 70 75 80

Ile Gln Phe Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys 85 90 95

Ser Ser Gly Gly Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr 100 105 110

Val Ser Ala 115

<210> 149

<211> 112

<212> PRT

<213> Mus musculus

<400> 149

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Ser Val Thr Pro Gly

1 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu Tyr Ser 20 25 30

Asn Gly Asn Ile Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Lys Ile
65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His 85 90 95

Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

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<210> 150
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<211> 118

<212> PRT

<213> Mus musculus

<400> 150

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Thr Asn Ser 20 25 30

Trp Met Asn Trp Val Arg Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn Gly Lys Phe 50 55 60

Arg Val Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr 65 70 75 80

Met Glu Ile Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys 85 90 95

Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 110

Leu Val Thr Val Ser Ala 115

<210> 151

<211> 112

<212> PRT

<213> Mus musculus

<400> 151

Asp Ile Val Met Thr Gln Ala Ala Pro Ser Val Pro Val Thr Pro Gly
1 5 10 15

Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Asn 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His
85 90 95

Ile Glu Tyr Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys 100 105 110

<210> 152

<211> 118

<212> PRT

<213> Mus musculus

<400> 152

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Asn Ser 20 25 30

Trp Met Asn Trp Val Asn Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Ile Tyr Asn Gly Asn Phe 50 55 60

Lys Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Ile Ala Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
85 90 95

Thr Ser Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ala 115

<210> 153

<211> 112 <212> PRT <213> Mus musculus <400> 153 Asp Ile Val Met Thr Gln Ala Ala Pro Ser Leu Pro Val Thr Pro Gly 10 Glu Ser Val Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 Asn Gly Asn Thr Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser 40 Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 55 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile 65 70 80 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His 85 90 95 Leu Glu Tyr Pro Tyr Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys 100 105 <210> 154 <211> 423 <212> DNA <213> Mus musculus <220> <221> CDS <222> (1)..(423) <400> 154 atg gtt ctt gcc agc tct acc acc agc atc cac acc atg ctg ctc ctg 48 Met Val Leu Ala Ser Ser Thr Thr Ser Ile His Thr Met Leu Leu Leu 10 ctc ctg atg ctg gcc cag ccg gcc atg gcg gaa gtg aag ctg gtg gag 96 Leu Leu Met Leu Ala Gln Pro Ala Met Ala Glu Val Lys Leu Val Glu 20 25 tct ggg gga ggc tta gtg aag cct gga ggg tcc cgg aaa ctc tcc tgt 144 Ser Gly Gly Leu Val Lys Pro Gly Gly Ser Arg Lys Leu Ser Cys 35 40

Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Thr Met Ser Trp Val Ar 50 55 60	c 192 g
cag act ccg gcg aag agg ctg gag tgg gtc gca acc att agt agt gg Gln Thr Pro Ala Lys Arg Leu Glu Trp Val Ala Thr Ile Ser Ser Gl 65 70 75 80	
agt agt acc atc tac tat gca gac aca gtg aag ggc cga ttc acc at Ser Ser Thr Ile Tyr Tyr Ala Asp Thr Val Lys Gly Arg Phe Thr Il 85 90 95	
tcc aga gac aat gcc aag aac acc ctg ttc ctg caa atg acc agt ct Ser Arg Asp Asn Ala Lys Asn Thr Leu Phe Leu Gln Met Thr Ser Le 100 105 110	
agg tct gag gac aca gcc atg tat tac tgt gca agg aga tgg ttt ct Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys Ala Arg Arg Trp Phe Le 115 120 125	
gac tgc tgg ggc caa ggc acc act ctc aca gtc tcc tcg Asp Cys Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser 130 135 140	423
<210> 155 <211> 141 <212> PRT	
<213> Mus musculus	
<213> Mus musculus <400> 155	
	u
<400> 155 Met Val Leu Ala Ser Ser Thr Thr Ser Ile His Thr Met Leu Leu Le	
<pre> <400> 155 Met Val Leu Ala Ser Ser Thr Thr Ser Ile His Thr Met Leu Leu Leu Le 1</pre>	u
<pre> <400> 155 Met Val Leu Ala Ser Ser Thr Thr Ser Ile His Thr Met Leu Leu Leu Le 1</pre>	u s
<pre> <400> 155 Met Val Leu Ala Ser Ser Thr Thr Ser Ile His Thr Met Leu Leu Leu Le 1</pre>	u s

Ser Arg Asp	Asn Ala Lys 100	Asn Thr Leu 105		Gln Met Thr 110	Ser Leu	
Arg Ser Glu 115	Asp Thr Ala	Met Tyr Tyr 120	Cys Ala	Arg Arg Trp 125	Phe Leu	
Asp Cys Trp 130	Gly Gln Gly	Thr Thr Leu 135	Thr Val	Ser Ser 140		
<210> 156 <211> 357 <212> DNA <213> Mus r	musculus					
<220> <221> CDS <222> (1).	. (357)					
	ctc acc caa Leu Thr Gln 5					48
cag agt gtc Gln Ser Val	acc atc tcc Thr Ile Ser 20	tgc aga gcc Cys Arg Ala 25	agt gaa Ser Glu	agt gtt gaa Ser Val Glu 30	tat tat Tyr Tyr	96
	tta atg cag Leu Met Gln					144
	atc tat ggt Ile Tyr Gly		Val Glu			192
agg ttt agt Arg Phe Ser 65	ggc agt ggg Gly Ser Gly 70	tct ggg aca Ser Gly Thr	gac ttc Asp Phe 75	agc ctc aac Ser Leu Asn	atc cat Ile His 80	240
cct gtg gag Pro Val Glu	gag gat gat Glu Asp Asp 85	att gca atg Ile Ala Met	tat ttc Tyr Phe 90	tgt cag caa Cys Gln Gln	agt agg Ser Arg 95	288
aag gtt ccg Lys Val Pro	tgg acg ttc Trp Thr Phe 100	ggt gga ggc Gly Gly Gly 105	acc aag	ctg gaa ata Leu Glu Ile 110	aag gac Lys Asp	336
	gac gac gat Asp Asp Asp					357

<211> 119

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<212> PRT
<213> Mus musculus
<400> 157
Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
Gln Ser Val Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Glu Tyr Tyr
                                25
Gly Thr Ser Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
                            40
Lys Leu Leu Ile Tyr Gly Ala Ser Asn Val Glu Ser Gly Val Pro Ala
    50
                        55
Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ser Leu Asn Ile His
                    70
Pro Val Glu Glu Asp Asp Ile Ala Met Tyr Phe Cys Gln Gln Ser Arg
                                    90
Lys Val Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Asp
            100
                                105
Tyr Lys Asp Asp Asp Lys
        115
<210> 158
<211> 432
<212> DNA
<213> Mus musculus
<220>
<221> CDS
<222>
      (1)..(432)
<400> 158
atg gtt ctt gcc agc tct acc acc agc atc cac acc atg ctg ctc ctg
                                                                      48
Met Val Leu Ala Ser Ser Thr Thr Ser Ile His Thr Met Leu Leu Leu
                                    10
ctc ctg atg ctg gcc cag ccg gcc atg gcg cag gtt cag ctc cag caa
                                                                      96
Leu Leu Met Leu Ala Gln Pro Ala Met Ala Gln Val Gln Leu Gln Gln
tct gga cct gag ctg gtg aag cct ggg gcc tca gtg aag att tcc tgc
                                                                     144
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35 40 45	
aag gct tct ggc tat gca ttc agt agc tcc tgg atg aac tgg atg aag Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser Trp Met Asn Trp Met Lys 50 55 60	192
cag agg cct gga aag ggt ctt gag tgg att ggg cgg att tat cct gga Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly 65 70 75 . 80	240
gat gga gat act aac tac aat ggg aag ttc aag ggc aag gcc aca ctg Asp Gly Asp Thr Asn Tyr Asn Gly Lys Phe Lys Gly Lys Ala Thr Leu 85 90 · 95	288
act gca gac aaa tcc tcc agc aca gcc tac atg caa ctc agc agc ctg Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu 100 105 110	336
aca tct gag gac tct gcg gtc tac ttc tgt gca aga gcg agg aaa act Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys Ala Arg Ala Arg Lys Thr 115 120 125	384
tcc tgg ttt gct tac tgg ggc caa ggg act ctg gtc act gtc tct gcg Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala 130 135 140	432
<210> 159 <211> 144	
<211> 144 <212> PRT <213> Mus musculus	
<212> PRT	
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<212> PRT <213> Mus musculus <400> 159 Met Val Leu Ala Ser Ser Thr Thr Ser Ile His Thr Met Leu Leu	
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Thr Ala Asp	Lys Ser 100	Ser Ser	Thr Ala		Met Gln	Leu Se		Leu	
Thr Ser Glu	_	Ala Val	Tyr Phe	e Cys	Ala Arg	Ala Are	g Lys	Thr	
Ser Trp Phe	e Ala Tyr	Trp Gly 135	Gln Gly	/ Thr	Leu Val 140	Thr Va	l Ser	Ala	
<210> 160 <211> 345 <212> DNA <213> Mus	musculus								
<220> <221> CDS <222> (1).	. (345)								
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gac agg gto Asp Arg Val									96
ata gcc tgg Ile Ala Trp 35	tat caa Tyr Gln	cag aaa Gln Lys	cca ggg Pro Gly 40	g caa g Gln g	tct cct Ser Pro	aaa gca Lys Ala 45	a ctg a Leu	att Ile	144
tac ttg gca Tyr Leu Ala 50									192
agt gga tct Ser Gly Ser 65	ggg aca Gly Thr	gat ttc Asp Phe 70	act ctc Thr Leu	Thr :	att agt Ile Ser 75	aat gto Asn Val	g cag . Gln	tct Ser 80	240
gaa gac ttg Glu Asp Leu	gca gag Ala Glu 85	tat ttc Tyr Phe	tgt cag Cys Gln	caa t Gln 7 90	tat agc Tyr Ser	agc tct Ser Sei	ccg Pro 95	ctc Leu	288
acg ttc ggt Thr Phe Gly	gct ggg Ala Gly 100	acc aag Thr Lys	ctg gaa Leu Glu 105	Ile I	aag gac Lys Asp	tac aag Tyr Lys 110	Asp	gac Asp	336
gac gat aag Asp Asp Lys 115									345

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<210> 161
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<211> 115

<212> PRT

<213> Mus musculus

<400> 161

Asp Ile Val Leu Thr Gln Ser Gln Lys Phe Met Ser Thr Ser Val Gly 1 5 10 15

Asp Arg Val Ser Ile Ser Cys Lys Ala Ser Gln Asn Val Gly Asn Ile
20 25 30

Ile Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ala Leu Ile 35 40 45

Tyr Leu Ala Ser Tyr Arg Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser 65 70 75 80

Glu Asp Leu Ala Glu Tyr Phe Cys Gln Gln Tyr Ser Ser Ser Pro Leu 85 90 95

Thr Phe Gly Ala Gly Thr Lys Leu Glu Ile Lys Asp Tyr Lys Asp Asp 100 105 110

Asp Asp Lys 115

<210> 162

<211> 116

<212> PRT

<213> Mus musculus

<400> 162

Asp Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln 1 5 10 15

Ser Leu Ser Leu Thr Cys Thr Val Thr Gly Tyr Ser Ile Thr Ser Asp 20 25 30

Tyr Ala Trp Ser Trp Ile Arg Gln Leu Pro Gly Asn Lys Leu Glu Trp 35 40 45

Met Gly Tyr Ile Thr Tyr Ser Gly Tyr Ser Ile Tyr Asn Pro Ser Leu 50 60

Lys Ser Arg Ile Ser Ile Ser Arg Asp Thr Ser Lys Asn Gln Leu Phe 65 70 75 80

Leu Gln Leu Asn Ser Val Thr Thr Glu Asp Thr Ala Thr Tyr Tyr Cys
85 90 95

Val Gly Gly Tyr Asp Asn Met Asp Tyr Trp Gly Gln Gly Thr Ser Val 100 105 110

Thr Val Ser Ser 115

<210> 163

<211> 108

<212> PRT

<213> Mus musculus

<400> 163

Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Leu Thr Cys Ser Ala Ser Ser Ser Val Ser Ser Ser 20 25 30

His Leu Tyr Trp Tyr Gln Gln Lys Pro Gly Ser Ser Pro Lys Leu Trp 35 40 45

Ile Tyr Ser Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser 50 55 60

Gly Ser Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Asn Met Glu 65 70 75 80

Thr Glu Asp Ala Ala Ser Tyr Phe Cys His Gln Trp Ser Ser Tyr Pro 85 90 95

Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<211> 1924 <212> DNA Macaca fascicularis <213> <220> CDS <221> <222> (11)..(1918)<400> 164 gaattecace atg ecc tee tgg gee etc tte atg gte acc tee tge etc 49 Met Pro Ser Trp Ala Leu Phe Met Val Thr Ser Cys Leu ctc ctg gcc cct caa aac ctg gcc caa gtc agc agc caa gat gtc tcc 97 Leu Leu Ala Pro Gln Asn Leu Ala Gln Val Ser Ser Gln Asp Val Ser ttg ctg gcc tcg gac tca gag ccc ctg aag tgt ttc tcc cga aca ttt 145 Leu Leu Ala Ser Asp Ser Glu Pro Leu Lys Cys Phe Ser Arg Thr Phe 30 35 gag gac ctc act tgc ttc tgg gat gag gaa gag gca gca ccc agt ggg 193 Glu Asp Leu Thr Cys Phe Trp Asp Glu Glu Glu Ala Ala Pro Ser Gly 50 aca tac cag ctg ctg tat gcc tac ccg ggg gag aag ccc cgt gcc tgc 241 Thr Tyr Gln Leu Leu Tyr Ala Tyr Pro Gly Glu Lys Pro Arg Ala Cys ccc ctg agt tct cag agc gtg ccc cgc ttt gga acc cga tac gtg tgc 289 Pro Leu Ser Ser Gln Ser Val Pro Arg Phe Gly Thr Arg Tyr Val Cys 80 cag ttt cca gcc cag gaa gaa gtg cgt ctc ttc tct ccg ctq cac ctc 337 Gln Phe Pro Ala Gln Glu Glu Val Arg Leu Phe Ser Pro Leu His Leu 100 tgg gtg aag aat gtg ttc cta aac cag act cag att cag cga gtc ctc 385 Trp Val Lys Asn Val Phe Leu Asn Gln Thr Gln Ile Gln Arg Val Leu 115 ttt gtg gac agt gta ggc ctg ccg gct ccc ccc agt atc atc aag gcc 433 Phe Val Asp Ser Val Gly Leu Pro Ala Pro Pro Ser Ile Ile Lys Ala 130 135 atg ggt ggg agc cag cca ggg gaa ctt cag atc agc tgg gag gcc cca 481 Met Gly Gly Ser Gln Pro Gly Glu Leu Gln Ile Ser Trp Glu Ala Pro 145 155 get eca gaa ate agt gat tte etg agg tae gaa ete ege tat gge ece 529 Ala Pro Glu Ile Ser Asp Phe Leu Arg Tyr Glu Leu Arg Tyr Gly Pro 160 aaa gat ctc aag aac tcc act ggt ccc acg gtc ata cag ttg atc gcc 577 Lys Asp Leu Lys Asn Ser Thr Gly Pro Thr Val Ile Gln Leu Ile Ala 175

						gct Ala										625
_	_	_			_	gct Ala	_			_				_		673
	_	_				act Thr	_	_	_		_	_		_		721
		_	_			tca Ser										769
						cct Pro 260										817
						gtg Val										865
						ttt Phe										913
						cat His										961
						ccc Pro										1009
						aca Thr 340										1057
						tca Ser										1105
gtg Val	gag Glu	gtg Val	acc Thr	aca Thr 370	gcc Ala	ctg Leu	ggt Gly	gct Ala	gtt Val 375	cac His	agt Ser	tac Tyr	ctg Leu	ggc Gly 380	tcc Ser	1153
cct Pro	ttc Phe	tgg Trp	atc Ile 385	cac His	cag Gln	gct Ala	gtg Val	cgc Arg 390	ctc Leu	ccc Pro	acc Thr	cca Pro	aac Asn 395	ttg Leu	cac His	1201
tgg Trp	agg Arg	gag Glu 400	atc Ile	tcc Ser	agc Ser	Gly ggg	cat His 405	ctg Leu	gaa Glu	ttg Leu	gag Glu	tgg Trp 410	cag Gln	cac His	cca Pro	1249
tca	tcc	tgg	gca	gcc	caa	gag	acc	tgc	tat	caa	ctc	cga	tac	aca	gga	1297

Ser	Ser 415	Trp	Ala	Ala	Gln	Glu 420	Thr	Cys	Tyr	Gln	Leu 425	Arg	Tyr	Thr	Gly	
_			_	_		_		_		_		ctc Leu		_	_	1345
			-		_	_	_	_		_		cgt Arg		_	_	1393
	_											tgg Trp	_	_		1441
												gcc Ala 490				1489
_			_	-	_			_			_	gcc Ala	_	_		1537
			_			_			_			agg Arg	_	_		1585
	_	_						-	_		_	gtc Val			_	1633
												gcc Ala				1681
												atc Ile 570				1729
												cag Gln				1777
												atg Met				1825
gtg Val	tgc Cys	cca Pro	ccc Pro	atg Met 610	gct Ala	gag Glu	tca Ser	Gly 999	tcc Ser 615	tgc Cys	tgt Cys	acc Thr	acc Thr	cac His 620	att Ile	1873
gcc Ala	aac Asn	cat His	tcc Ser 625	tac Tyr	cta Leu	cca Pro	cta Leu	agc Ser 630	tat Tyr	tgg Trp	cag Gln	cag Gln	cct Pro 635	tga		1918
gtcg	ac															1924

- <210> 165 <211> 635
- <212> PRT
- <213> Macaca fascicularis

<400> 165

Met Pro Ser Trp Ala Leu Phe Met Val Thr Ser Cys Leu Leu Leu Ala 1 5 10 15

Pro Gln Asn Leu Ala Gln Val Ser Ser Gln Asp Val Ser Leu Leu Ala 20 25 30

Ser Asp Ser Glu Pro Leu Lys Cys Phe Ser Arg Thr Phe Glu Asp Leu 35 40 45

Thr Cys Phe Trp Asp Glu Glu Glu Ala Ala Pro Ser Gly Thr Tyr Gln
50 55 60

Leu Leu Tyr Ala Tyr Pro Gly Glu Lys Pro Arg Ala Cys Pro Leu Ser 65 70 75 80

Ser Gln Ser Val Pro Arg Phe Gly Thr Arg Tyr Val Cys Gln Phe Pro 85 90 95

Ala Gln Glu Val Arg Leu Phe Ser Pro Leu His Leu Trp Val Lys
100 105 110

Asn Val Phe Leu Asn Gln Thr Gln Ile Gln Arg Val Leu Phe Val Asp 115 120 125

Ser Val Gly Leu Pro Ala Pro Pro Ser Ile Ile Lys Ala Met Gly Gly 130 135 140

Ser Gln Pro Gly Glu Leu Gln Ile Ser Trp Glu Ala Pro Ala Pro Glu 145 150 155 160

Ile Ser Asp Phe Leu Arg Tyr Glu Leu Arg Tyr Gly Pro Lys Asp Leu 165 170 175

Lys Asn Ser Thr Gly Pro Thr Val Ile Gln Leu Ile Ala Thr Glu Thr
180 185 190

Cys Cys Pro Ala Leu Gln Arg Pro His Ser Ala Ser Ala Leu Asp Gln 195 200 205

Ser Pro Cys Ala Gln Pro Thr Met Pro Trp Gln Asp Gly Pro Lys Gln 210 215 220

Thr Ser Pro Thr Arg Glu Ala Ser Ala Leu Thr Ala Val Gly Gly Ser 225 230 235 240

Cys Leu Ile Ser Gly Leu Gln Pro Gly Asn Ser Tyr Trp Leu Gln Leu 245 250 255

Arg Ser Glu Pro Asp Gly Ile Ser Leu Gly Gly Ser Trp Gly Ser Trp 260 265 270

Ser Leu Pro Val Thr Val Asp Leu Pro Gly Asp Ala Val Ala Ile Gly 275 280 285

Leu Gln Cys Phe Thr Leu Asp Leu Lys Asn Val Thr Cys Gln Trp Gln 290 295 300

Gln Glu Asp His Ala Ser Ser Gln Gly Phe Phe Tyr His Ser Arg Ala 305 310 315 320

Arg Cys Cys Pro Arg Asp Arg Tyr Pro Ile Trp Glu Asp Cys Glu Glu 325 330 335

Glu Glu Lys Thr Asn Pro Gly Leu Gln Thr Pro Gln Phe Ser Arg Cys 340 345 350

His Phe Lys Ser Arg Asn Asp Ser Val Ile His Ile Leu Val Glu Val 355 360 365

Thr Thr Ala Leu Gly Ala Val His Ser Tyr Leu Gly Ser Pro Phe Trp 370 375 380

Ile His Gln Ala Val Arg Leu Pro Thr Pro Asn Leu His Trp Arg Glu 385 · 390 395 400

Ile Ser Ser Gly His Leu Glu Leu Glu Trp Gln His Pro Ser Ser Trp
405 410 415

Ala Ala Gln Glu Thr Cys Tyr Gln Leu Arg Tyr Thr Gly Glu Gly His

420	425	430

Gln Asp Trp Lys Val Leu Glu Pro Pro Leu Gly Ala Arg Gly Gly Thr 435 440 445

Leu Glu Leu Arg Pro Arg Ser Arg Tyr Arg Leu Gln Leu Arg Ala Arg 450 455 460

Leu Asn Gly Pro Thr Tyr Gln Gly Pro Trp Ser Ser Trp Ser Asp Pro 465 470 475 480

Ala Arg Val Glu Thr Ala Thr Glu Thr Ala Trp Ile Ser Leu Val Thr 485 490 495

Ala Leu Leu Val Leu Gly Leu Ser Ala Val Leu Gly Leu Leu Leu 500 505 510

Leu Arg Trp Gln Phe Pro Ala His Tyr Arg Arg Leu Arg His Ala Leu 515 520 525

Trp Pro Ser Leu Pro Asp Leu His Arg Val Leu Gly Gln Tyr Leu Arg 530 540

Asp Thr Ala Ala Leu Ser Pro Pro Lys Ala Thr Val Ser Asp Thr Cys 545 550 555 560

Glu Glu Val Glu Pro Ser Leu Leu Glu Ile Leu Pro Lys Ser Ser Glu
565 570 575

Arg Thr Pro Leu Pro Leu Cys Ser Ser Gln Ser Gln Met Asp Tyr Arg
580 585 590

Arg Leu Gln Pro Ser Cys Leu Gly Thr Met Pro Leu Ser Val Cys Pro 595 600 605

Pro Met Ala Glu Ser Gly Ser Cys Cys Thr Thr His Ile Ala Asn His 610 620

Ser Tyr Leu Pro Leu Ser Tyr Trp Gln Gln Pro 625 630 635

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<212> DNA
<213> Artificial
<220>
<223> an artificially synthesized sequence
<400> 166
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caggggccag tggatagact gatg
<210> 167
<211> 23
<212> DNA
<213> Artificial
<220>
<223> an artificially synthesized sequence
<400> 167
gctcactgga tggtgggaag atg
                                                                     23
<210> 168
<211> 30
<212> DNA
<213> Artificial
<220>
<223> an artificially synthesized primer sequence
<400> 168
tagaattcca ccatggaatg gcctttgatc
                                                                     30
<210> 169
<211> 56
<212> DNA
<213> Artificial
<220>
<223>
      an artificially synthesized primer sequence
<400> 169
agcctgagtc atcacaatat ccgatccgcc tccacctgca gagacagtga ccagag
                                                                     56
<210> 170
<211> 56
<212> DNA
<213> Artificial
<220>
<223>
      an artificially synthesized primer sequence
<400> 170
actctggtca ctgtctctgc aggtggaggc ggatcggata ttgtgatgac tcaggc
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<210> 171
<211>
      60
<212> DNA
<213> Artificial
<220>
      an artificially synthesized primer sequence
<223>
<400> 171
attgcggccg cttatcactt atcgtcgtca tccttgtagt cttttatttc cagcttggtc
                                                                     60
<210> 172
<211> 8
<212> PRT
<213> Artificial
<220>
<223> an artificially synthesized FLAG tag sequence
<400> 172
Asp Tyr Lys Asp Asp Asp Lys
<210> 173
<211>
      85
<212> DNA
<213> Artificial
<220>
<223>
      an artificially synthesized primer sequence
<400> 173
tagaattcca ccatggaatg gcctttgatc tttctcttcc tcctgtcagg aactgcaggt
                                                                     60
gtccactccc aggttcagct gcagc
                                                                     85
<210> 174
<211>
      82
<212> DNA
<213> Artificial
<220>
<223>
      an artificially synthesized primer sequence
<400> 174
tggtcactgt ctctgcaggt ggtggtggtt cgggtggtgg tggttcgggt ggtggcggat
                                                                     60
cggatattgt gatgactcag gc
                                                                     82
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<210> 175

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<211> 82
<212> DNA
<213> Artificial
<220>
<223> an artificially synthesized primer sequence
<400> 175
tgagtcatca caatatccga tccgccacca cccgaaccac caccacccga accaccacca
                                                                      60
cctgcagaga cagtgaccag ag
                                                                      82
<210> 176
<211> 25
<212> DNA
<213> Artificial
<220>
<223> an artificially synthesized primer sequence
<400> 176
caggttcagc tgcagcagtc tggac
                                                                      25
<210> 177
<211> 81
<212> DNA
<213> Artificial
<220>
<223> an artificially synthesized primer sequence
<400> 177
gctgcagctg aacctgcgat ccaccgcctc ccgaaccacc accacccgat ccaccacctc
                                                                      60
cttttatttc cagcttggtc c
                                                                      81
<210> 178
<211> 38
<212> DNA
<213> Artificial
<220>
<223> an artificially synthesized primer sequence
<400> 178
gcccagccgg ccatggcgga kgtrmagctt caggagtc
                                                                     38
<210> 179
<211>
      38
<212> DNA
<213> Artificial
<220>
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<223>	an artificially synthesized primer sequence	
<400>	179	
	ccgg ccatggcgga ggtbcagctb cagcagtc	38
<210>	180	
<211>	38	
<212>		
<213>	Artificial	
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70 75 65 ccc ctg agt tcc cag agc atg ccc cac ttt gga acc cga tac gtg tgc 289 Pro Leu Ser Ser Gln Ser Met Pro His Phe Gly Thr Arg Tyr Val Cys 85 cag ttt cca gac cag gag gaa gtg cct ctc ttc ttt ccg ctg cac ctc 337 Gln Phe Pro Asp Gln Glu Glu Val Pro Leu Phe Pro Leu His Leu 100 tgg gtg aag aat gtg ttc cta aac cag act cgg act cag cga gtc ctc 385 Trp Val Lys Asn Val Phe Leu Asn Gln Thr Arg Thr Gln Arg Val Leu ttt gtg gac agt gta ggc ctg ccg gct ccc ccc agt atc atc aag gcc 433 Phe Val Asp Ser Val Gly Leu Pro Ala Pro Pro Ser Ile Ile Lys Ala atg ggt ggg agc cag cca ggg gaa ctt cag atc agc tgg gag gag cca 481 Met Gly Gly Ser Gln Pro Gly Glu Leu Gln Ile Ser Trp Glu Glu Pro 145 get cea gaa ate agt gat tte etg agg tae gaa ete ege tat gge eee 529 Ala Pro Glu Ile Ser Asp Phe Leu Arg Tyr Glu Leu Arg Tyr Gly Pro 165 aga gat ccc aag aac tcc act ggt ccc acg gtc ata cag ctg att gcc 577 Arg Asp Pro Lys Asn Ser Thr Gly Pro Thr Val Ile Gln Leu Ile Ala 175 180 aca gaa acc tgc tgc cct gct ctg cag aga cct cac tca gcc tct gct 625 Thr Glu Thr Cys Cys Pro Ala Leu Gln Arg Pro His Ser Ala Ser Ala 190 195 ctg gac cag tct cca tgt gct cag ccc aca atg ccc tgg caa gat gga 673 Leu Asp Gln Ser Pro Cys Ala Gln Pro Thr Met Pro Trp Gln Asp Gly 210 cca aag cag acc tcc cca agt aga gaa gct tca gct ctg aca qca qaq 721 Pro Lys Gln Thr Ser Pro Ser Arg Glu Ala Ser Ala Leu Thr Ala Glu 225 ggt gga agc tgc ctc atc tca gga ctc cag cct ggc aac tcc tac tgg 769 Gly Gly Ser Cys Leu Ile Ser Gly Leu Gln Pro Gly Asn Ser Tyr Trp 240 245 ctg cag ctg cgc agc gaa cct gat ggg atc tcc ctc ggt ggc tcc tgg 817 Leu Gln Leu Arg Ser Glu Pro Asp Gly Ile Ser Leu Gly Gly Ser Trp 260 gga tee tgg tee etc eet gtg aet gtg gae etg eet gga gat gea gtg 865 Gly Ser Trp Ser Leu Pro Val Thr Val Asp Leu Pro Gly Asp Ala Val 275 gca ctt gga ctg caa tgc ttt acc ttg gac ctg aag aat gtt acc tgt 913 Ala Leu Gly Leu Gln Cys Phe Thr Leu Asp Leu Lys Asn Val Thr Cys 290 295

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_		_		_	tgc Cys		_	_								1009
					aaa Lys											1057
	_				aag Lys 355		_		_	_						1105
					gcc Ala											1153
					cag Gln											1201
					agt Ser			-	_	_			_			1249
					caa Gln											1297
					tgg Trp 435											1345
					ctg Leu											1393
					ggc Gly											1441
tcg Ser	gac Asp	cca Pro 480	act Thr	agg Arg	gtg Val	gag Glu	acc Thr 485	gcc Ala	acc Thr	gag Glu	acc Thr	gcc Ala 490	tgg Trp	atc Ile	tcc Ser	1489
					cat His											1537
					tgg Trp 515											1585

cat g His A																1633
tac c Tyr L																1681
gat a Asp T	hr	_	_	_		_		_			_				_	1729
tcc t Ser S		_				_		_	_			_	_	_	-	1777
gac t Asp T 590																1825
gtg t Val C																1873
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gtcga	.c				•											1924
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Ser A		Ser 35	Glu	Pro	Leu	Lys	Cys 40	Phe	Ser	Arg	Thr	Phe 45	Glu	Asp	Leu	
Thr C		?he	Trp	Asp	Glu	Glu 55	Glu	Ala	Ala	Pro	Ser	Gly	Thr	Tyr	Gln	

Leu Leu Tyr Ala Tyr Pro Arg Glu Lys Pro Arg Ala Cys Pro Leu Ser

Ser Gln Ser Met Pro His Phe Gly Thr Arg Tyr Val Cys Gln Phe Pro 85 90 95

Asp Gln Glu Val Pro Leu Phe Pro Leu His Leu Trp Val Lys
100 105 110

Asn Val Phe Leu Asn Gln Thr Arg Thr Gln Arg Val Leu Phe Val Asp 115 120 125

Ser Val Gly Leu Pro Ala Pro Pro Ser Ile Ile Lys Ala Met Gly Gly 130 135 140

Ser Gln Pro Gly Glu Leu Gln Ile Ser Trp Glu Glu Pro Ala Pro Glu 145 150 155 160

Ile Ser Asp Phe Leu Arg Tyr Glu Leu Arg Tyr Gly Pro Arg Asp Pro 165 170 175

Lys Asn Ser Thr Gly Pro Thr Val Ile Gln Leu Ile Ala Thr Glu Thr
180 185 190

Cys Cys Pro Ala Leu Gln Arg Pro His Ser Ala Ser Ala Leu Asp Gln 195 200 205

Ser Pro Cys Ala Gln Pro Thr Met Pro Trp Gln Asp Gly Pro Lys Gln 210 215 220

Thr Ser Pro Ser Arg Glu Ala Ser Ala Leu Thr Ala Glu Gly Gly Ser 225 230 235 240

Cys Leu Ile Ser Gly Leu Gln Pro Gly Asn Ser Tyr Trp Leu Gln Leu 245 250 255

Arg Ser Glu Pro Asp Gly Ile Ser Leu Gly Gly Ser Trp Gly Ser Trp 260 265 270

Ser Leu Pro Val Thr Val Asp Leu Pro Gly Asp Ala Val Ala Leu Gly 275 280 285

Leu Gln Cys Phe Thr Leu Asp Leu Lys Asn Val Thr Cys Gln Trp Gln 290 295 300

Gln Gln Asp His Ala Ser Ser Gln Gly Phe Phe Tyr His Ser Arg Ala 305 310 315 320

Arg Cys Cys Pro Arg Asp Arg Tyr Pro Ile Trp Glu Asn Cys Glu Glu 325 330 335

Glu Glu Lys Thr Asn Pro Gly Leu Gln Thr Pro Gln Phe Ser Arg Cys 340 345 350

His Phe Lys Ser Arg Asn Asp Ser Ile Ile His Ile Leu Val Glu Val 355 360 365

Thr Thr Ala Pro Gly Thr Val His Ser Tyr Leu Gly Ser Pro Phe Trp 370 375 380

Ile His Gln Ala Val Arg Leu Pro Thr Pro Asn Leu His Trp Arg Glu 385 390 395 400

Ile Ser Ser Gly His Leu Glu Leu Glu Trp Gln His Pro Ser Ser Trp 405 410 415

Ala Ala Gln Glu Thr Cys Tyr Gln Leu Arg Tyr Thr Gly Glu Gly His 420 425 430

Gln Asp Trp Lys Val Leu Glu Pro Pro Leu Gly Ala Arg Gly Gly Thr 435 440 445

Leu Glu Leu Arg Pro Arg Ser Arg Tyr Arg Leu Gln Leu Arg Ala Arg 450 455 460

Leu Asn Gly Pro Thr Tyr Gln Gly Pro Trp Ser Ser Trp Ser Asp Pro 465 470 475 480

Thr Arg Val Glu Thr Ala Thr Glu Thr Ala Trp Ile Ser Leu Val Thr 485 490 495

Ala Leu His Leu Val Leu Gly Leu Ser Ala Val Leu Gly Leu Leu 500 505 510

Leu Arg Trp Gln Phe Pro Ala His Tyr Arg Arg Leu Arg His Ala Leu 515 520 525

Trp Pro Ser Leu Pro Asp Leu His Arg Val Leu Gly Gln Tyr Leu Arg

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Asp Thr Ala Ala Leu Ser	Pro Pro Lys Ala Thr	Val Ser Asp Thr Cys
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Glu Glu Val Glu Pro Ser	Leu Leu Glu Ile Leu	Pro Lys Ser Ser Glu
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Arg Thr Pro Leu Pro Leu	Cys Ser Ser Gln Ala	Gln Met Asp Tyr Arg
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Arg Leu Gln Pro Ser Cys	Leu Gly Thr Met Pro	Leu Ser Val Cys Pro
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gag gac ctc act tgc ttc	tgg gat gag gaa gag	gca gcg ccc agt ggg 193
Glu Asp Leu Thr Cys Phe	Trp Asp Glu Glu Glu	Ala Ala Pro Ser Gly
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aca tac cag ctg ctg tat	gcc tac ccg cgg gag	aag ccc cgt gct tgc 241
Thr Tyr Gln Leu Leu Tyr	Ala Tyr Pro Arg Glu	Lys Pro Arg Ala Cys
65	70	75

	ctg Leu															289
_	ttt Phe 95		_	_		_		_				_	_			337
	gtg Val	_						_				_	_	_		385
	gtg Val															433
	ggt Gly										_					481
	cca Pro															529
	gat Asp 175															577
	gaa Glu			-		_	_	_	_				_		_	625
	gac Asp															673
	aag Lys															721
	gga Gly															769
	cag Gln 255															817
gga Gly 270	tcc Ser	tgg Trp	tcc Ser	ctc Leu	cct Pro 275	gtg Val	act Thr	gtg Val	gac Asp	ctg Leu 280	cct Pro	gga Gly	gat Asp	gca Ala	gtg Val 285	865
	ctt Leu															913
caa	tgg	cag	caa	cag	gac	cat	gct	agc	tcc	caa	ggc	ttc	ttc	tac	cac	961

Gln	Trp	Gln	Gln 305	Gln	Asp	His	Ala	Ser 310	Ser	Gln	Gly	Phe	Phe 315	Tyr	His		
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_	_		-		aaa Lys						_			_			1057
	_	_			aag Lys 355		_		_	_							1105
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					agt Ser												1249
					caa Gln												1297
					tgg Trp 435												1345
					ctg Leu												1393
cgc Arg	gcc Ala	agg Arg	ctc Leu 465	aac Asn	ggc Gly	ccc Pro	acc Thr	tac Tyr 470	caa Gln	ggt Gly	ccc Pro	tgg Trp	agc Ser 475	tcg Ser	tgg Trp		1441
					gtg Val											:	1489
ttg Leu	gtg Val 495	acc Thr	gct Ala	ctg Leu	cat His	cta Leu 500	gtg Val	ctg Leu	ggc Gly	ctc Leu	agc Ser 505	gcc Ala	gtc Val	ctg Leu	ggc Gly	;	1537
ctg Leu 510	ctg Leu	ctg Leu	ctg Leu	agg Arg	tgg Trp 515	cag Gln	ttt Phe	cct Pro	gca Ala	cac His 520	tac Tyr	agg Arg	aga Arg	ctg Leu	agg Arg 525	;	1585
cat His	gcc Ala	ctg Leu	tgg Trp	ccc Pro	tca Ser	ctt Leu	cca Pro	gac Asp	ctg Leu	cac His	cgg Arg	gtc Val	cta Leu	ggc Gly	cag Gln	:	1633

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gat acc tgt gaa Asp Thr Cys Glu 560		_	_		_				-	1729
tcc tca gag agg Ser Ser Glu Arg 575		_	_	_		_	_	_	_	1777
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Asp	Gln	Glu	Glu 100	Val	Arg	Leu	Phe	Phe 105	Pro	Leu	His	Leu	Trp 110	Val	Lys
Asn	Val	Phe 115	Leu	Asn	Gln	Thr	Arg 120	Thr	Gln	Arg	Val	Leu 125	Phe	Val	Asp
Ser	Val 130	Gly	Leu	Pro	Ala	Pro 135	Pro	Ser	Ile	Ile	Lys 140	Ala	Met	Gly	Gly
Ser 145	Gln	Pro	Gly	Glu	Leu 150	Gln	Ile	Ser	Trp	Glu 155	Glu	Pro	Ala	Pro	Glu 160
Ile	Ser	Asp	Phe	Leu 165	Arg	Tyr	Glu	Leu	Arg 170	Tyr	Gly	Pro	Arg	Asp 175	Pro
Lys	Asn	Ser	Thr 180	Gly	Pro	Thr	Val	Ile 185	Gln	Leu	Ile	Ala	Thr 190	Glu	Thr
Cys	Cys	Pro 195	Ala	Leu	Gln	Arg	Pro 200	His	Ser	Ala	Ser	Ala 205	Leu	Asp	Gln
Ser	Pro 210	Cys	Ala	Gln	Pro	Thr 215	Met	Pro	Trp	Gln	Asp 220	Gly	Pro	Lys	Gln
Thr 225	Ser	Pro	Ser	Arg	Glu 230	Ala	Ser	Ala	Leu	Thr 235	Ala	Glu	Gly	Gly	Ser 240
Cys	Leu	Ile	Ser	Gly 245	Leu	Gln	Pro	Gly	Asn 250		Tyr	Trp	Leu	Gln 255	Leu
Cys	Ser	Glu	Pro 260	Asp	Gly	Ile	Ser	Leu 265	Gly	Gly	Ser	Trp	Gly 270	Ser	Trp
Ser	Leu	Pro 275	Val	Thr	Val	Asp	Leu 280	Pro	Gly	Asp	Ala	Val 285	Ala	Leu	Gly
Leu	Gln 290	Cys	Phe	Thr	Leu	Asp 295	Leu	Lys	Asn	Val	Thr 300	Cys	Gln	Trp	Gln
Gln 305	Gln	Asp	His	Ala	Ser 310	Ser	Gln	Gly	Phe	Phe 315	Tyr	His	Ser	Arg	Ala 320

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- Glu Glu Lys Thr Asn Pro Gly Leu Gln Thr Pro Gln Phe Ser Arg Cys
 340 345 350
- His Phe Lys Ser Arg Asn Asp Ser Ile Ile His Ile Leu Val Glu Val 355 360 365
- Thr Thr Ala Pro Gly Thr Val His Ser Tyr Leu Gly Ser Pro Phe Trp 370 375 380
- Ile His Gln Ala Val Arg Leu Pro Thr Pro Asn Leu His Trp Arg Glu 385 390 395 400
- Ile Ser Ser Gly His Leu Glu Leu Glu Trp Gln His Pro Ser Ser Trp
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- Ala Ala Gln Glu Thr Cys Tyr Gln Leu Arg Tyr Thr Gly Glu Gly His 420 425 430
- Gln Asp Trp Lys Val Leu Glu Pro Pro Leu Gly Ala Arg Gly Gly Thr 435 440 445
- Leu Glu Leu Arg Pro Arg Ser Arg Tyr Arg Leu Gln Leu Arg Ala Arg 450 455 460
- Leu Asn Gly Pro Thr Tyr Gln Gly Pro Trp Ser Ser Trp Ser Asp Pro 465 470 475 480
- Thr Arg Val Glu Thr Ala Thr Glu Thr Ala Trp Ile Ser Leu Val Thr 485 490 495
- Ala Leu His Leu Val Leu Gly Leu Ser Ala Val Leu Gly Leu Leu Leu 500 505 510
- Leu Arg Trp Gln Phe Pro Ala His Tyr Arg Arg Leu Arg His Ala Leu 515 520 525
- Trp Pro Ser Leu Pro Asp Leu His Arg Val Leu Gly Gln Tyr Leu Arg 530 540

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Arg	Thr	Pro	Leu 580	Pro	Leu	Cys	Ser	Ser 585	Gln	Ala	Gln	Met	Asp 590	Tyr	Arg	
Arg	Leu	Gln 595	Pro	Ser	Cys	Leu	Gly 600	Thr	Met	Pro	Leu	Ser 605	Val	Cys	Pro	
Pro	Met 610		Glu	Ser	Gly	Ser 615	Cys	Cys	Thr	Thr	His 620	Ile	Ala	Asn	His	
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80 90 85 cag ttt cca gac cag gag gaa gtg cgt ctc ttc ttt ccg ctg cac ctc 337 Gln Phe Pro Asp Gln Glu Glu Val Arq Leu Phe Phe Pro Leu His Leu 100 105 tgg gtg aag aat gtg ttc cta aac cag act cgg act cag cga qtc ctc 385 Trp Val Lys Asn Val Phe Leu Asn Gln Thr Arg Thr Gln Arg Val Leu 110 115 120 ttt gtg gac agt gta ggc ctg ccg gct ccc ccc agt atc atc aag gcc 433 Phe Val Asp Ser Val Gly Leu Pro Ala Pro Pro Ser Ile Ile Lys Ala 130 135 atg ggt ggg agc cag cca ggg gaa ctt cag atc agc tgg gag gag cca 481 Met Gly Gly Ser Gln Pro Gly Glu Leu Gln Ile Ser Trp Glu Glu Pro 145 get eea gaa ate agt gat tte etg agg tae gaa ete ege tat gge eee 529 Ala Pro Glu Ile Ser Asp Phe Leu Arg Tyr Glu Leu Arg Tyr Gly Pro 160 aga gat ccc aag aac tcc act ggt ccc acg gtc ata cag ctg att qcc 577 Arg Asp Pro Lys Asn Ser Thr Gly Pro Thr Val Ile Gln Leu Ile Ala aca gaa acc tgc tgc cct gct ctg cag aga cct cac tca gcc tct gct 625 Thr Glu Thr Cys Cys Pro Ala Leu Gln Arg Pro His Ser Ala Ser Ala 190 195 200 ctg gac cag tct cca tgt gct cag ccc aca atg ccc tgg caa gat gga 673 Leu Asp Gln Ser Pro Cys Ala Gln Pro Thr Met Pro Trp Gln Asp Gly 210 215 cca aag cag acc tcc cca agt aga gaa gct tca gct ctg aca gca gag 721 Pro Lys Gln Thr Ser Pro Ser Arg Glu Ala Ser Ala Leu Thr Ala Glu 225 230 ggt gga agc tgc ctc atc tca gga ctc cag cct ggc aac tcc tac tgg 769 Gly Gly Ser Cys Leu Ile Ser Gly Leu Gln Pro Gly Asn Ser Tyr Trp 240 ctg cag ctg cgc agc gaa cct gat ggg atc tcc ctc ggt ggc tcc tgg 817 Leu Gln Leu Arg Ser Glu Pro Asp Gly Ile Ser Leu Gly Gly Ser Trp 255 gga tee tgg tee ete act gtg act gtg gae etg eet gga gat gea gtg 865 Gly Ser Trp Ser Leu Thr Val Thr Val Asp Leu Pro Gly Asp Ala Val 270 275 gca ctt gga ctg caa tgc ttt acc ttg gac ctg aag aat gtt acc tgt 913 Ala Leu Gly Leu Gln Cys Phe Thr Leu Asp Leu Lys Asn Val Thr Cys caa tgg cag caa cag gac cat gct agc tcc caa ggc ttc ttc tac cac 961 Gln Trp Gln Gln Gln Asp His Ala Ser Ser Gln Gly Phe Phe Tyr His 305 310

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_	_		_			aca Thr 340					_			_		:	1057
						tca Ser										:	1105
						ccg Pro										:	1153
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						gag Glu 420		_				_				3	1297
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					_	cgc Arg	_	_		_		_		_	_	1	1393
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						cta Leu 500										1	L537
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Tyr Leu Arg Asp Thr Ala Ala Leu Ser Pro Pro Lys Ala Thr Val Ser 545 550 555	1681
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gac tac cga aga ttg cag cct tct tgc ctg ggg acc atg ccc ctg tct Asp Tyr Arg Arg Leu Gln Pro Ser Cys Leu Gly Thr Met Pro Leu Ser 590 595 600 605	1825
gtg tgc cca ccc atg gct gag tca ggg tcc tgc tgt acc acc cac att Val Cys Pro Pro Met Ala Glu Ser Gly Ser Cys Cys Thr Thr His Ile 610 615 620	1873
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100 105 110

Asn Val Phe Leu Asn Gln Thr Arg Thr Gln Arg Val Leu Phe Val Asp 115 120 125

Ser Val Gly Leu Pro Ala Pro Pro Ser Ile Ile Lys Ala Met Gly Gly 130 135 140

Ser Gln Pro Gly Glu Leu Gln Ile Ser Trp Glu Glu Pro Ala Pro Glu 145 150 155 160

Ile Ser Asp Phe Leu Arg Tyr Glu Leu Arg Tyr Gly Pro Arg Asp Pro 165 170 175

Lys Asn Ser Thr Gly Pro Thr Val Ile Gln Leu Ile Ala Thr Glu Thr 180 185 190

Cys Cys Pro Ala Leu Gln Arg Pro His Ser Ala Ser Ala Leu Asp Gln
195 200 205

Ser Pro Cys Ala Gln Pro Thr Met Pro Trp Gln Asp Gly Pro Lys Gln 210 215 220

Thr Ser Pro Ser Arg Glu Ala Ser Ala Leu Thr Ala Glu Gly Gly Ser 225 230 235 240

Cys Leu Ile Ser Gly Leu Gln Pro Gly Asn Ser Tyr Trp Leu Gln Leu 245 250 255

Arg Ser Glu Pro Asp Gly Ile Ser Leu Gly Gly Ser Trp Gly Ser Trp 260 265 270

Ser Leu Thr Val Thr Val Asp Leu Pro Gly Asp Ala Val Ala Leu Gly 275 280 285

Leu Gln Cys Phe Thr Leu Asp Leu Lys Asn Val Thr Cys Gln Trp Gln 290 295 300

Gln Gln Asp His Ala Ser Ser Gln Gly Phe Phe Tyr His Ser Arg Ala 305 310 315 320

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Glu Glu Lys Thr Asn Pro Gly Leu Gln Thr Pro Gln Phe Ser Arg Cys 340 345 350

His Phe Lys Ser Arg Asn Asp Ser Ile Ile His Ile Leu Val Glu Val 355 360 365

Thr Thr Ala Pro Gly Thr Val His Ser Tyr Leu Gly Ser Pro Phe Trp 370 375 380

Ile His Gln Ala Val Arg Leu Pro Thr Pro Asn Leu His Trp Arg Glu 385 390 395 400

Ile Ser Ser Gly His Leu Glu Leu Glu Trp Gln His Pro Ser Ser Trp
405 410 415

Ala Ala Gln Glu Thr Cys Tyr Gln Leu Arg Tyr Thr Gly Glu Gly His 420 425 430

Gln Asp Trp Lys Val Leu Glu Pro Pro Leu Gly Ala Arg Gly Gly Thr 435 440 445

Leu Glu Leu Arg Pro Arg Ser Arg Tyr Arg Leu Gln Leu Arg Ala Arg 450 455 460

Leu Asn Gly Pro Thr Tyr Gln Gly Pro Trp Ser Ser Trp Ser Asp Pro 465 470 475 480

Thr Arg Val Glu Thr Ala Thr Glu Thr Ala Trp Ile Ser Leu Val Thr 485 490 495

Ala Leu His Leu Val Leu Gly Leu Ser Ala Val Leu Gly Leu Leu 500 505 510

Leu Arg Trp Gln Phe Pro Ala His Tyr Arg Arg Leu Arg His Ala Leu 515 520 525

Trp Pro Ser Leu Pro Asp Leu His Arg Val Leu Gly Gln Tyr Leu Arg 530 540

Asp Thr Ala Ala Leu Ser Pro Pro Lys Ala Thr Val Ser Asp Thr Cys

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Arg Leu Gln Pro Ser Cys L 595	eu Gly Thr Met Pro 600	Leu Ser Val Cys Pi 605	co
Pro Met Ala Glu Ser Gly S 610 6	er Cys Cys Thr Thr 15	His Ile Ala Asn H: 620	is
Ser Tyr Leu Pro Leu Ser T 625 630	yr Trp Gln Gln Pro 635		
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ggcagtggat caggcacagc ttt	tacactg aaaatcagca	gagtggaggc tgaggat	gtt 720
ggggtttatt actgcatgca aca	tatagaa tatcctttta	cgttcggcca agggaco	aaa 780
ctggaaatca aaggaggtgg tgg	atcgggt ggtggtggtt	cgggaggcgg tggatcg	cag 840

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<210> 254

<211> 524

<212> PRT

<213> Homo sapiens

<400> 254

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Val Gln Ser Gln Val Gln Leu Val Gln Ser Gly Pro Glu Val Lys Lys 20 25 30

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe 35 40 45

Thr Asn Ser Trp Met Asn Trp Val Arg Gln Arg Pro Gly Lys Gly Leu 50 55 60

Glu Trp Val Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn

70 75 80

Gly Lys Phe Arg Val Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser 85 90 95 Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val 100 105 110

Tyr Tyr Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly
115 120 125

Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly 130 135 140

Gly Gly Ser Gly Gly Gly Ser Asp Ile Val Met Thr Gln Ser Ala 150 155 160

Leu Ser Leu Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg 165 170 175

Ser Ser Lys Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Leu Tyr Trp
180 185 190

Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Arg Met 195 200 205

Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser 210 215 220

Gly Thr Ala Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val 225 230 235 240

Gly Val Tyr Tyr Cys Met Gln His Ile Glu Tyr Pro Phe Thr Phe Gly 245 250 255

Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly 260 265 270

Gly Ser Gly Gly Gly Ser Gln Val Gln Leu Val Gln Ser Gly Pro 275 280 285

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser 290 295 300

Gly Tyr Thr Phe Thr Asn Ser Trp Met Asn Trp Val Arg Gln Arg Pro 305 310 315 320

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Tyr Pro Gly Asp Gly Glu 325 330 335

Thr Ile Tyr Asn Gly Lys Phe Arg Val Arg Val Thr Ile Thr Ala Asp 340 345 350

Glu Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu 355 360 365

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe 370 380

Ala Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly 385 390 395 400

Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Val Met 405 410 415

Thr Gln Ser Ala Leu Ser Leu Pro Val Thr Pro Gly Glu Pro Ala Ser 420 425 430

Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser Asn Gly Asn Thr
435 440 445

Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu 450 455 460

Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe Ser 465 470 475 480

Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Lys Ile Ser Arg Val Glu 485 490 495

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Phe Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys 515 520

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<211> 354

<212> DNA

<213> Homo sapiens

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cctggaaagg gtcttgagtg ggttggacgg atttatcctg gagatggaga aactatctac 180
aatgggaaat tcagggtcag agtcacgatt accgcggacg aatccacgag cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagaggctat 300
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<210> 256

<211> 118

<212> PRT

<213> Homo sapiens

<400> 256

Gln Val Gln Leu Val Gln Ser Gly Pro Glu Val Lys Lys Pro Gly Ala 1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Ser 20 25 30

Trp Met Asn Trp Val Arg Gln Arg Pro Gly Lys Gly Leu Glu Trp Val 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn Gly Lys Phe 50 60

Arg Val Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr 100 105 110

Thr Val Thr Val Ser Ser 115

<210> 257

<211> 336

<212> DNA

<213> Homo sapiens

<400> 257
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tacctgcaga agccagggca gtctccacag ctcctgatct atcggatgtc caaccttgcc 180
tcaggggtcc ctgacaggtt cagtggcagt ggatcaggca cagcttttac actgaaaatc 240
agcagagtgg aggctgagga tgttggggtt tattactgca tgcaacatat agaatatcct 300
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<210> 258

<211> 112

<212> PRT

<213> Homo sapiens

<400> 258

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1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser 20 25 30

Asn Gly Asn Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser 35 40 45

Pro Gln Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Lys Ile 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His 85 90 95

Ile Glu Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 259

<211> 1572

<212> DNA

<213> Homo sapiens

<400> 259

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tgcaaggctt	ctggatacac	cttcaccaac	tcctggatga	actggatcag	gcagaggcct	180
ggaaagggtc	ttgagtggat	tggacggatt	tatcctggag	atggagaaac	tatctacaat	240
gggaaattca	gggtcagagt	cacgattacc	gcggacgaat	ccacgagcac	agcctacatg	300
gagctgagca	gcctgagatc	tgaggacacg	gccgtgtatt	actgtgcgag	aggctatgat	360
gattactcgt	ttgcttactg	gggccaggga	accctggtca	ccgtctcttc	aggtggtggt	420
ggatccggag	gtggtggatc	gggtggtgga	ggatcggata	ttgtgatgac	tcagtctgca	480
ctctccctgc	ccgtcacccc	tggagagccg	gcctccatct	cctgcaggtc	tagtaagagt	540
ctcctgcata	gtaatggcaa	cacttacttg	tattggtacc	tgcagaagcc	agggcagtct	600
ccacagctcc	tgatctatcg	gatgtccaac	cttgcctcag	gggtccctga	caggttcagt	660
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gagetgagea	gcctgagatc	tgaggacacg	accatatatt	actotocoao	aggetatgat	1140
		gggccaggga				1200
		gggtggtgga			•	1260
		tggagagccg				1320
		cacttacttg				1380
		gatgtccaac				1440
		ttttacactg				1500
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<211> 524

<212> PRT

<213> Homo sapiens

<400> 260

Met Asp Trp Thr Trp Arg Phe Leu Phe Val Val Ala Ala Ala Thr Gly 1 5 10 15

Val Gln Ser Gln Val Gln Leu Val Gln Ser Gly Pro Glu Val Lys Lys 20 25 30

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe 35 40 45

Thr Asn Ser Trp Met Asn Trp Ile Arg Gln Arg Pro Gly Lys Gly Leu 50 55 60

Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn 65 70 75 80

Gly Lys Phe Arg Val Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser 85 90 95

Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val 100 105 110

Tyr Tyr Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly 115 120 125

Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly 130 135 140

Gly Gly Ser Gly Gly Gly Ser Asp Ile Val Met Thr Gln Ser Ala 145 150 155 160

Leu Ser Leu Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg 165 170 175

Ser Ser Lys Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Leu Tyr Trp 180 185 190

Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Arg Met 195 200 205

Ser	Asn Leu	Ala	Ser	Gly	Val	Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser
	210				215					220				

- Gly Thr Ala Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val 225 230 235 240
- Gly Val Tyr Tyr Cys Met Gln His Ile Glu Tyr Pro Phe Thr Phe Gly
 245 250 255
- Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly 260 265 270
- Gly Ser Gly Gly Gly Ser Gln Val Gln Leu Val Gln Ser Gly Pro 275 280 285
- Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser 290 295 300
- Gly Tyr Thr Phe Thr Asn Ser Trp Met Asn Trp Ile Arg Gln Arg Pro 305 310 315 320
- Gly Lys Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu 325 330 335
- Thr Ile Tyr Asn Gly Lys Phe Arg Val Arg Val Thr Ile Thr Ala Asp 340 345 350
- Glu Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu 355 360 365
- Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe 370 380
- Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Gly 385 390 395 400
- Gly Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Val Met 405 410 415
- Thr Gln Ser Ala Leu Ser Leu Pro Val Thr Pro Gly Glu Pro Ala Ser 420 425 430

Ile	Ser	Cys 435	Arg	Ser	Ser	Lys	Ser 440	Leu	Leu	His	Ser	Asn 445	Gly	Asn	Thr	
Tyr	Leu 450	Tyr	Trp	Tyr	Leu	Gln 455	Lys	Pro	Gly	Gln	Ser 460	Pro	Gln	Leu	Leu	
Ile 465	Tyr	Arg	Met	Ser	Asn 470	Leu	Ala	Ser	Gly	Val 475	Pro	Asp	Arg	Phe	Ser 480	
Gly	Ser	Gly	Ser	Gly 485	Thr	Ala	Phe	Thr	Leu 490	Lys	Ile	Ser	Arg	Val 495	Glu	
Ala	Glu	Asp	Val 500	Gly	Val	Tyr	Tyr	Cys 505	Met	Gln	His	Ile	Glu 510	Tyr	Pro	
Phe	Thr	Phe 515	Gly	Gln	Gly	Thr	Lys 520	Leu	Glu	Ile	Lys					
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tcct	gcaa	agg c	ttct	:ggat	a ca	cctt	caco	aac	tcct	gga	tgaa	ctgg	gat c	aggo	agagg	120
cctg	gaaa	igg g	tctt	gagt	g ga	ttgg	jacgo	g att	tato	ctg	gaga	tgga	ıga a	acta	itctac	180
aatg	ggaa	at t	cago	gtca	ıg ag	tcac	gatt	acc	gegg	jacg	aato	cacg	ıag c	cacag	cctac	240
atgg	agct	ga g	cago	ctga	ıg at	ctga	ıggac	acg	gccg	ıtgt	atta	ctgt	gc g	gagag	gctat	300
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Ser	Val	Lys	Val 20	Ser	Cys	Lys	Ala	Ser 25	Gly	Tyr	Thr	Phe	Thr 30	Asn	Ser	

Trp Met Asn Trp Ile Arg Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile 35 40 45

Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn Gly Lys Phe 50 55 60

Arg Val Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys 85 90 95

Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser 115

<210> 263

<211> 1572

<212> DNA

<213> Mus musculus

<400> 263

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<210> 264

<211> 524

<212> PRT

<213> Mus musculus

<400> 264

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Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe 35 40 45

Thr Asn Ser Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu 50 55 60

Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn 65 70 75 80

Gly Lys Phe Arg Val Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser

85 90 95

Thr Ala Tyr Met Asp Ile Ser Ser Leu Thr Ser Glu Asp Ser Ala Val

Tyr Phe Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly
115 120 125

Gln Gly Thr Leu Val Thr Val Ser Ala Gly Gly Gly Gly Ser Gly Gly 130 135 140

Gly Gly Ser Gly Gly Gly Ser Asp Ile Val Met Thr Gln Ala Ala 145 150 155 160

Pro Ser Ile Pro Val Thr Pro Gly Glu Ser Val Ser Ile Ser Cys Arg 165 170 175

Ser Ser Lys Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Leu Tyr Trp 180 185 190

Phe Leu Gln Arg Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Arg Met
[195] 200 205

Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser 210 220

Gly Thr Ala Phe Thr Leu Arg Ile Ser Arg Val Glu Ala Glu Asp Val 225 230 235 240

Gly Val Tyr Tyr Cys Met Gln His Ile Glu Tyr Pro Phe Thr Phe Gly 245 250 255

Ser Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly 260 265 270

Gly Ser Gly Gly Gly Ser Gln Val Gln Leu Gln Gln Ser Gly Pro 275 280 285

Glu Leu Val Lys Pro Gly Ala Ser Val Lys Ile Ser Cys Lys Ala Ser 290 295 300

Gly Tyr Ala Phe Thr Asn Ser Trp Met Asn Trp Val Lys Gln Arg Pro 305 310 315 320

Gly Lys Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu 325 330 335

Thr Ile Tyr Asn Gly Lys Phe Arg Val Lys Ala Thr Leu Thr Ala Asp 340 345 350

Lys Ser Ser Ser Thr Ala Tyr Met Asp Ile Ser Ser Leu Thr Ser Glu 355 360 365

Asp Ser Ala Val Tyr Phe Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe 370 380

Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Gly Gly 385 390 395 400

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Asp Ile Val Met 405 410 415

Thr Gln Ala Ala Pro Ser Ile Pro Val Thr Pro Gly Glu Ser Val Ser 420 425 430

Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser Asn Gly Asn Thr
435 440 445

Tyr Leu Tyr Trp Phe Leu Gln Arg Pro Gly Gln Ser Pro Gln Leu Leu 450 455 460

Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe Ser 465 470 475 480

Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Arg Ile Ser Arg Val Glu 485 490 495

Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His Ile Glu Tyr Pro
500 505 510

Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys 515 520

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<213> Homo sapiens
<400> 265
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Asn Ser Trp Met Asn
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Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn Gly Lys Phe Arg
Val
<210> 269
<211>
      32
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<400> 269
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                                  10
Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
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<212> PRT
<213> Homo sapiens
<400> 270
Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr
    5 /
<210> 271
<211> 11
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<213> Homo sapiens
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Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
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<210> 272
<211> 23
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Asp Ile Val Met Thr Gln Ser Ala Leu Ser Leu Pro Val Thr Pro Gly
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Glu Pro Ala Ser Ile Ser Cys
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<212> PRT
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<210> 274

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<213> Homo sapiens
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<213> Homo sapiens
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Arg Met Ser Asn Leu Ala Ser
1 5
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Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys
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Met Gln His Ile Glu Tyr Pro Phe Thr
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Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
               5
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Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe 35 40 45

Thr Asn Ser Trp Met Asn Trp Val Arg Gln Arg Pro Gly Lys Gly Leu 50 55 60

Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn 65 70 75 80

Gly Lys Phe Arg Val Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser 85 90 95

Thr Ala Tyr Met Gln Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val
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Tyr Tyr Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe Ala Tyr Trp Gly
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Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly 130 135 140

Gly Gly Ser Gly Gly Gly Ser Asp Ile Val Met Thr Gln Ser Pro 145 150 155 160

Leu Ser Leu Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg 165 170 175

Ser Ser Lys Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Leu Tyr Trp 180 185 190

Phe Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Arg Met 195 200 205

Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser 210 220

Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val 225 230 235 240

Gly Val Tyr Tyr Cys Met Gln His Ile Glu Tyr Pro Phe Thr Phe Gly 245 250 255

Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly 260 265 270

Gly Ser Gly Gly Gly Ser Gln Val Gln Leu Val Gln Ser Gly Pro

275 280 285

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser 290 295 300

Gly Tyr Thr Phe Thr Asn Ser Trp Met Asn Trp Val Arg Gln Arg Pro 305 310 315 320

Gly Lys Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu 325 330 335

Thr Ile Tyr Asn Gly Lys Phe Arg Val Arg Val Thr Ile Thr Ala Asp 340 345 350

Glu Ser Thr Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu Arg Ser Glu 355 360 365

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe 370 375 380

Ala Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly 385 390 395 400

Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser Asp Ile Val Met 405 410 415

Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly Glu Pro Ala Ser 420 425 430

Ile Ser Cys Arg Ser Ser Lys Ser Leu Leu His Ser Asn Gly Asn Thr 435 440 445

Tyr Leu Tyr Trp Phe Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu 450 460

Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe Ser 465 470 475 480

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu 485 490 495

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Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Ile Tyr Asn Gly Lys Phe 50 60

Arg Val Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr 65 70 75 80

Met Gln Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
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Pro	Gly	Ala 35	Ser	Val	Lys	Val	Ser 40	Cys	Lys	Ala	Ser	Gly 45	Tyr	Thr	Phe		
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Gln	Gly 130	Thr	Thr	Val	Thr	Val 135	Ser	Ser	Gly	Gly	Gly 140	Gly	Ser	Gly	Gly		

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Leu Ser Leu Pro Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg

Ser Ser Lys Ser Leu Leu His Ser Asn Gly Asn Thr Tyr Leu Tyr Trp 180 185 190

Phe Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr Arg Met 195 200 205

Ser Asn Leu Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser 210 215 220

Gly Thr Ala Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val 225 230 235 240

Gly Val Tyr Tyr Cys Met Gln His Ile Glu Tyr Pro Phe Thr Phe Gly
245 250 255

Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Gly Ser Gly Gly Gly 260 265 270

Gly Ser Gly Gly Gly Ser Gln Val Gln Leu Val Gln Ser Gly Pro 275 280 285

Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser 290 295 300

Gly Tyr Thr Phe Thr Asn Ser Trp Met Asn Trp Val Arg Gln Arg Pro 305 310 315 320

Gly Lys Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu 325 330 335

Thr Ile Tyr Asn Gly Lys Phe Arg Val Arg Val Thr Ile Thr Ala Asp 340 345 350

Glu Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu 355 360 365

Asp Thr Ala Val Tyr Tyr Cys Ala Arg Gly Tyr Asp Asp Tyr Ser Phe 370 375 380

Ala Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly 385 390 395 400

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Ile Ser Cys Arg Ser Se 435	er Lys Ser Leu 440	Leu His Ser	Asn Gly Asn Thr 445	
Tyr Leu Tyr Trp Phe G	ln Gln Lys Pro 455	Gly Gln Ala 460	Pro Arg Leu Leu	
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Ala A	Arg	Gly	Tyr 100	Asp	Asp	Tyr	Ser	Phe 105	Ala	Tyr	Trp	Gly	Gln 110	Gly	Thr	
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Pro Arg Leu Leu Ile Tyr Arg Met Ser Asn Leu Ala Ser Gly Val Pro 50 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Ala Phe Thr Leu Lys Ile 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln His 85 90 95

Ile Glu Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
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Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr 20 25 30

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